Guam Fire Department

Fire Fighter Recruit

Physical Ability Test

(FRPAT)

Candidate Preparation Guide

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Guam Fire Department

Fire Fighter Recruit Physical Ability Test

(FRPAT)

Introduction:

The Government of Guam requires a physical abilities test for those candidates applying for the Fire Fighter Recruit position. The purpose of the physical test is to screen applicants based on their ability to perform the required physical activities of the entry level fire fighter job. Those that have passed the written test will be scheduled for the physical test. Department of Administration Human Resources staff will administer the FRPAT with the assistance of the Guam Fire Department.

The job of a firefighter is one of the most physically demanding professions in the Government of Guam. The primary work environment of firefighting subjects the employee to potential grave personal danger. With sufficient physical fitness, the employee will be better prepared to safely perform all required duties involved in saving lives and protecting of property. The FRPAT consists of six continuous test events to be completed in a time of 7 minutes and 45 seconds that simulate critical physical duties performed on the fire ground, they are: 1) Ladder Raise and Climb; 2) Forcible Entry; 3) Stair Climb; 4) Hose Drag; 5) Equipment Carry; and 6) Rescue Drag. The events will be tested one at a time in the order indicated, this is a Pass or Fail test. This test was developed using current industry standards that focuses on safety while physically challenging the candidate. This guide was developed to physically prepare the candidate for the FRPAT.

Pre-Test Recommendations

Prior to an applicant taking the FRPAT they will be required to read, sign and submit a Physical Informed Consent and Liability Waiver Form.

It is highly recommended to seek the advice from a medical physician prior to adopting an exercise regimen in preparation for the FRPAT. It is recommended that the candidate seek assistance through a trained exercise professional or follow some of the suggested exercises in this guide. Pre-workout supplements that increase heart rate are highly discouraged

Proper nutrition is also essential in preparation for the physical test. For the human body to achieve the greatest possible physical ability, it requires balanced nutrition through the consumption of healthy foods.

Suggested exercises are outlined starting on page 15 of this booklet.

Test Day Requirements

Candidates are required to wear long pants of durable material, shirt, sports shoes and gloves. Shorts, tank tops, and open footwear will not be allowed. Candidates presenting without required personal protective clothing as mentioned will not be allowed to take the test. A Hard Hat weighing 1 lbs. gloves and a weighted vest weighing 40 lbs. will be provided and are required to be worn throughout the course.

Candidates must bring their own water for hydration. Candidates are highly encouraged to be well rested by getting at least eight hours of sleep the night before. The FRPAT events will be held outdoors and could be subject to delays resulting in prolonged exposure to the sun. Candidates should take proper precautions such as using sunscreen to protect the skin. Note that based on observations by Department of Administration Human Resources staff and Guam Fire Department personnel, the candidate may be instructed to stop if the candidate shows obvious signs of distress or injury for the safety of the candidate.

FRPAT Test Events

Course Requirements & Information

In order to successfully pass the FRPAT, the properly outfitted candidate must complete all events in the order as indicated in this Guide while wearing the supplied helmet, gloves and weighted vest. The time limit to complete the course is seven (7) minutes forty-five (45) seconds. Candidates are encouraged to transition through each event by walking as quickly, efficiently and safely as possible**. No running is allowed on the course at any time.** Candidates will complete the course one at a time. The course will begin at Event 1 with the test monitor announcing, "Ready, Set, GO", and end at the finish of Event 6. The FRPAT is a pass/fail test. This means that as long as an applicant completes the course correctly in 7 minutes and 45 seconds or less, the applicant will pass the test and no extra points will be awarded for completing the course with a fast time. No retesting is allowed for candidates that fail the test.

While going through the course, if the hard hat should become loose, or fall off, the candidate must re-secure it and continue. If the hard hat malfunctions in such a way that the candidate is unable to secure it due to no fault of the candidate (e.g. strap breaks), the candidate must signal to the test monitor of the problem and if it is determined that in fact the hat is defective, the candidate will be given another opportunity to restart the test all over with the time limit being reset as well. In the event of other equipment malfunctions due to no fault of the candidate (e.g. while pulling the mannequin, the strap comes off, or while pulling the hose, a section of the hose comes apart), the candidate will be instructed to stop and will be given an opportunity to restart the test all over with the time limit being reset as well. However, the candidate may be disqualified if the candidate purposely takes off the hat, the gloves or weighted vest while undergoing the test.

If a Candidate skips an Event, the candidate will be told to return to the required Event and continue in order of Events from there. Each Candidate will be given two warnings of improper test taking before the candidate will be told to stop. When a warning is issued, the candidate must restart the Event that they are currently performing, the time of the Course remains running. For example, if during the 75 foot walk between the events the candidate breaks walking stride and runs, the monitor will issue a warning and the candidate will return to the beginning of the walk; if the candidate is performing the step event and fails to complete a complete set of 30 steps or drops the hose pack, the the candidate will be given a warning by the monitor and will be required to start the steps from the beginning. The course time will continue running and if the candidate is still performing the Events when the time of 7 minutes and 45 seconds runs out the monitor will stop the candidate ending the test.

Event 1: Ladder Raise and Climb

Event Description

For this event, the candidate will walk 75 feet up to the ladder, lift it, without extending it and place it stationary against the wall, pulling the legs out into a marked box. The candidate will then walk up a minimum of five rungs, touch the top rung and then down. Failure to place the ladder properly or skipping rungs, and failure to touch the top rung will result in failure concluding the event and test.

Equipment Used

This event uses one 14-foot fire department extension ladder weighing 114 lbs. A safety line will be attached to the ladder in case of slippage to prevent injury.

Purpose of Evaluation

This event is designed to simulate the critical tasks of placing a ground ladder at a fire structure and climbing the ladder to the roof or window. This event challenges your aerobic capacity, upper body muscular strength, lower body muscular strength, balance, grip strength, and anaerobic endurance. This event affects your aerobic and anaerobic energy systems as well as the following muscle groups: biceps, deltoids, upper back, trapezius, muscles of the forearm and hand (grip), glutes, quadriceps, and hamstrings.

Event 2: Forcible Entry

Event Description
For this event, the candidate must walk 75 feet to a metal track. The candidate must use a 10-pound (4.54 kg) sledgehammer to strike a 60 pound tire and move it 30 inches. Failure is determined if the candidate does not move the tire 30 inches and will conclude the event and test.

Equipment Used
This event uses a metal track, a 60 lbs. forklift tire, and a 10 lbs. sledgehammer.

Purpose of Evaluation
This event is designed to simulate the critical tasks of using force to open a locked door or to breach a wall. This event challenges your aerobic capacity, upper body muscular strength and endurance, lower body muscular strength and endurance, balance, grip strength and endurance, and anaerobic endurance. This event affects your aerobic and anaerobic energy systems as well as the following muscle groups: quadriceps, glutes, triceps, upper back, trapezius, and muscles of the forearm and hand (grip).

Event 3: Stair Climb

Event Description
The candidate will walk 75 feet to a box, pick up a hose pack and step onto the box thirty times while carrying the hose pack. One step is considered complete when the candidate steps up with both feet on the box and returns with both feet on the ground. Not completing 30 full steps with the hose on your shoulder will be considered a failure and conclude the event and test.

Equipment Used
This event uses a wooden box that can handle a weight of 300 lbs. that is seven inches high and a 25 lbs. hose pack consisting of 50 Feet of 1 3/4 inch hose that is accordion wrapped to be placed over the shoulder.

Purpose of Evaluation
This event is designed to simulate the critical tasks of climbing stairs in full protective clothing while carrying a high-rise pack (hose bundle) and/or equipment. This event challenges your aerobic capacity, lower body muscular endurance, and ability to balance. This event affects your aerobic energy system as well as the following muscle groups: quadriceps, hamstrings, glutes, calves, and lower back stabilizers.

Event 4: Hose Drag

Event Description

For this event, the candidate will walk 75 feet to an uncharged 2 1/2" X 100' hose line with nozzle; pick up hose line with nozzle, drape across shoulder and chest; pull fully stretched line 75 feet; crawl (on hands and knees) back 50 feet keeping one hand in constant contact with the hose line back to coupling. The candidate will then turn around facing nozzle and drop to one knee and pull one section or 50 ft. of hose back to him/her. Not pulling hose forward the prescribed distance, not maintaining contact with the hose during the crawl, and not pulling hose back the prescribed distance will result in failure and will conclude the event and test

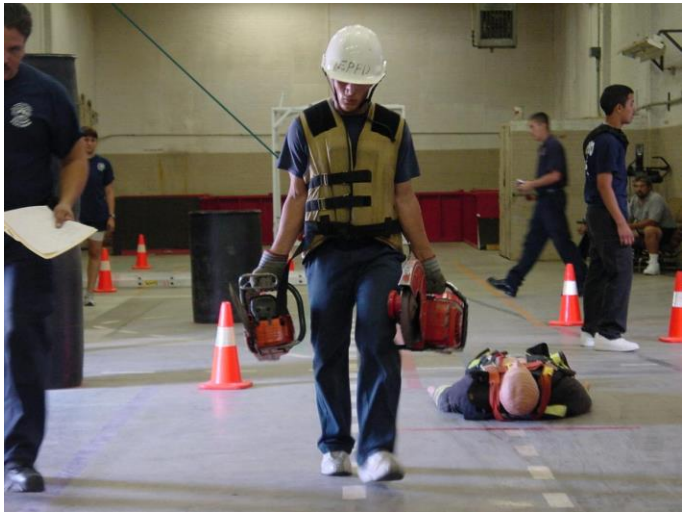
Equipment Used

This event uses an uncharged 2½ inch diameter 100 foot length hose line with an attached 2 lbs. nozzle. The weight of the hose line increases due to friction as the hose line is dragged. Hose lines are 60 lbs. per 50 foot section.

Purpose of Evaluation

This event is designed to simulate the critical tasks of dragging an uncharged hose line from the fire apparatus to the fire occupancy and pulling an uncharged hose line around obstacles while remaining stationary. This event challenges your aerobic capacity, lower body muscular strength and endurance, upper back muscular strength and endurance, grip strength and endurance, and anaerobic endurance. This event affects your aerobic and anaerobic energy systems as well as the following muscle groups: quadriceps, hamstrings, glutes, calves, lower back stabilizers, biceps, deltoids, upper back, and muscles of the forearm and hand (grip).

Event 5: Equipment Carry



Event Description
The candidate will walk 75 feet to this event, the candidate will pick up two power tools, one in each hand and carry them while walking 75 feet to a mark; then back to the starting point. The candidate is permitted to place the equipment on the ground and adjust to grip. Dropping the equipment at any time or not completing the walk with both tools in each hand will be considered a failure concluding the event and test.

Equipment Used
This event uses two types of actual handheld power tools, i.e. K12 saw and a hydraulic extrication tool. Hand tools weigh between 15 to 25 lbs. depending on availability of equipment. (Note: the exact weight of the tools will be set prior to the start of the physical testing process and be maintained throughout for all candidates. Also, dumbbell weights may be substituted for the actual tools).

Purpose of Evaluation
This event is designed to simulate the critical tasks of removing power tools from a fire apparatus, carrying them to the emergency scene, and returning the equipment to the fire apparatus. This event challenges your aerobic capacity, upper body muscular strength and endurance, lower body muscular endurance, grip endurance, and balance. This event affects your aerobic energy system as well as the following muscle groups: biceps, deltoids, upper back, trapezius, muscles of the forearm and hand (grip), glutes, quadriceps, and hamstrings.

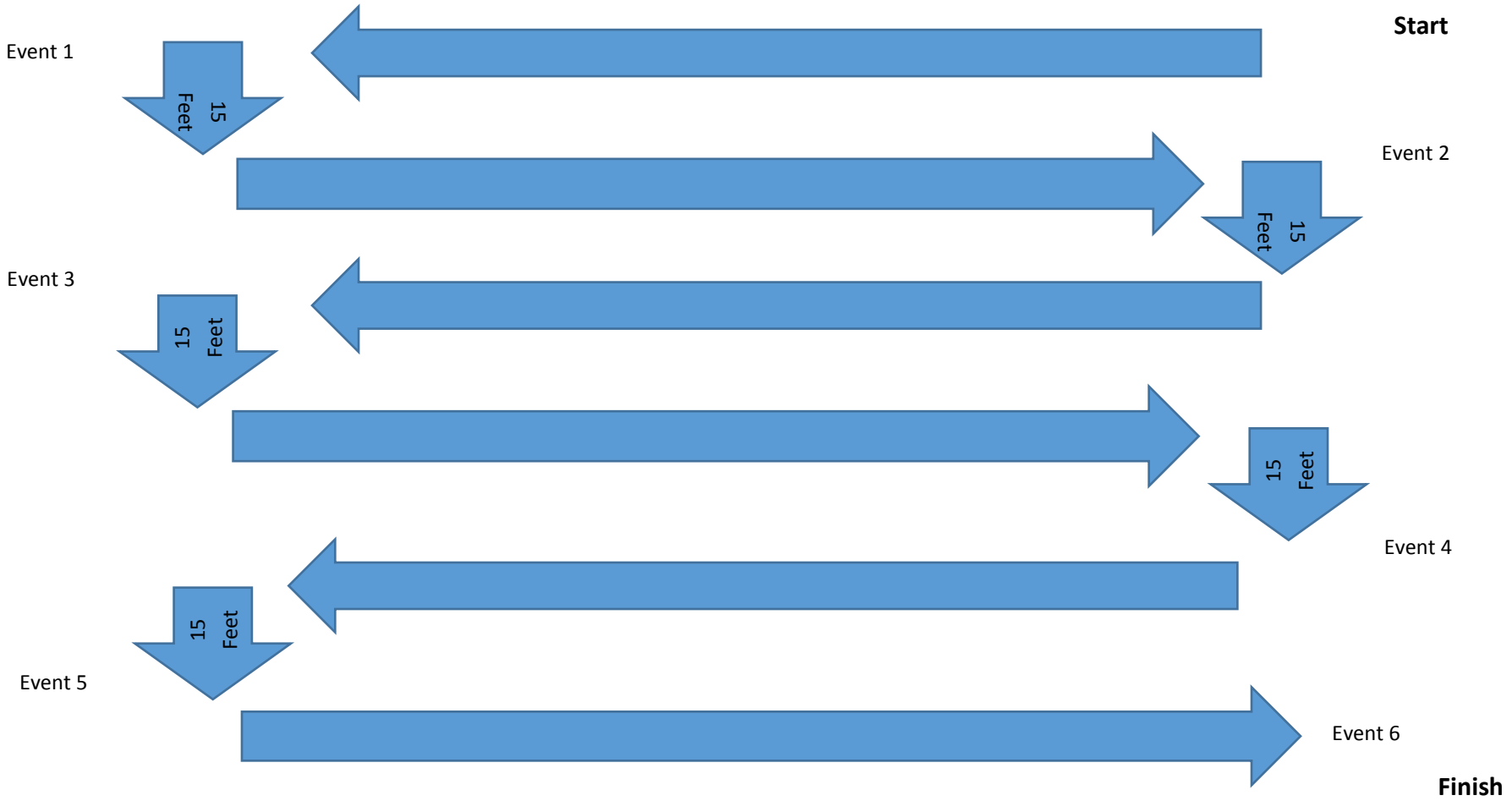
Event 6: Rescue Drag

Event Description
The candidate will walk 75 feet to this event, grasp the mannequin by the harness, drag it 35 feet by walking backwards to a prepositioned mark, make a 180 degree turn around the mark, and continue an additional 35 feet to the finish line. Candidate is permitted to drop and release the mannequin and adjust grip. The entire mannequin must be dragged with the lower half of the body (i.e. legs) maintaining contact with the ground until it crosses the marked finish line which will conclude the test. The candidate must cross the marked finish line first followed by the mannequin which can only be dragged while upright and not by crawling or in the sitting position. Not pulling the mannequin the prescribed distance is considered a failure and will conclude the event and the test.

Equipment Used
This event uses a weighted 165 to 185 lbs. mannequin equipped with a harness with shoulder handles. Course will be marked for turnaround point and finish. (Note: the exact weight of the mannequin will be set prior to the start of the physical testing process and be maintained throughout for all candidates).

Purpose of Evaluation
This event is designed to simulate the critical task of removing a victim or injured partner from a fire scene. This event challenges your aerobic capacity, upper and lower body muscular strength and endurance, grip strength and endurance, and anaerobic endurance. This event affects your aerobic and anaerobic energy systems as well as the following muscle groups: quadriceps, hamstrings, glutes, abdominals, torso rotators, lower back stabilizers, trapezius, deltoids, latissimus dorsi, biceps, and muscles of the forearm and hand (grip).

COURSE LAYOUT



Suggested Fitness Preparation for FRPAT

Introduction

Warm-ups and Stretching, weight training, calisthenics, and cardiovascular training are all essential to a well-rounded physical fitness program and to increase the chances of passing the FRPAT.

The following are merely suggestions. There are many other exercises that may be more comfortable to the candidate and it is encouraged to use them to achieve the same goals. Before adopting any type of fitness program, it is highly recommended to see a doctor for physical and medical clearances.

Warm-up and Stretching

Warm-ups and stretching are essential to loosening up tight muscles. As with any fitness program, warm-ups and stretching are highly encouraged and serve many purposes. They increase blood flow to the muscles and joints, improve performance, improve flexibility and decrease the possibility of injury.

Each of the following exercises should be held at each stretch for a minimum of 20-30 seconds. Breathe slowly through the nose and exhale out the mouth

Calf Stretch

1. Foot alignment should be shoulder width apart, you can confirm this by standing either side of a straight line on the floor.
2. When you take your rear foot back, it should not cross or move away from the midline, your foot should be pointing forward with your heel either flat on the floor, or raised if aiming to develop the stretch.
3. Your front leg should bend so that when you look down over your knee, you can see the tip of your toes. Then lean forward keeping the knee in a straight line with your heel, hip and head until fully stretched.
4. Repeat for each calf

Normal Stretch

1. Stand with your feet shoulder-width apart, one foot extended half a step forward.
2. Keeping the front leg straight, bend your rear leg, resting both hands on the bent thigh.
3. Slowly exhale, aiming to tilt both buttocks upward, keeping the front leg straight, and both feet flat on the floor, pointing forward.
4. Inhale slowly, and relax from this stretching exercise. Repeat the stretch again, this time beginning with the toes of the front foot raised toward the ceiling, but keeping the heel on the floor.

Quadriceps Stretch Standing

1. Stand holding onto a secure object, or have one hand raised out to the side for balance.
2. Raise one heel up toward your buttocks, and grasp hold of your foot, with one hand.
3. Inhale, slowly pulling your heel to your buttock while gradually pushing your pelvis forward.
4. Aim to keep both knees together, having a slight bend in the supporting leg.
5. Repeat for each leg.

Leg Over

1. Lie on your back, extending your left arm out to the side, while taking your left leg over your right, bringing the knee inline with the hips.
2. Keeping your right leg straight, use your right arm to push down on the knee of the left leg, exhaling slowly as you stretch.
3. Repeat for each leg.

Spine Curve

1. Begin the stretch by laying on your front, with your hands close to your chest, fingers pointing upward.
2. Exhale, pushing yourself up with your arms and contracting your buttocks while keeping both feet firmly on the floor.
3. Look up toward the ceiling, to also feel the stretch in your neck.

Shoulder Strangle

1. Cross one arm horizontally over your chest, grasping it with either your hand or forearm, just above the elbow joint.
2. Exhale, slowly pulling your upper arm in toward your chest.
3. Aim to keep the hips and shoulders facing forward throughout the stretch.
4. Repeat for each arm.

Strength and Endurance Training

This training is designed to improve your total body strength and endurance through resistance. This is achieved using weights. The goal is to prepare you for the physical ability test. The following are suggested exercises to help you prepare for the test. If you are unfamiliar with the basics of weightlifting, please seek the advice of a professional trainer to avoid any injury. The previous stated warm-up exercises or any other similar program should precede any of these exercises. Conduct each of the following exercises with moderate weight at three sets and 8-10 reps per set.

Seated Leg Press

1. Place feet flat on the push platform about shoulder width apart and toes pointed slightly outward.
2. Push weight while exhaling and inhale when coming back down.
3. Keep knees aligned with feet.

Leg Extensions

1. Adjust the machine so that the backs of the knees are against the pad and the back pad is supporting the lower back.
2. Extend the knees just before the knees lock.
3. Slowly lower the weight to starting position.
4. Exhale while pushing and inhale while lowering the weight.

Bench Press

1. Lie on bench with feet flat on the floor.
2. Grip should be shoulder at least width apart.
3. Lower bar to middle of the chest.
4. Push bar back up to the starting position.
5. Exhale while pushing and inhale while lowering the weight.

Lat Pull Down

1. Adjust seat to allow for full range of motion.
2. Grip should be just wider than shoulder width apart.
3. Pull bar straight down to the top of chest while keeping an arch to the back.
4. Return to starting position.
5. Exhale while pulling the weight and inhale during the release.

Dumb Bell Rows (one arm)

1. Standing on one side of the bench, place one knee on the bench and support the upper body with one arm.
2. With the free arm hold the DB fully extended. Pull the weight to the waist area and lower back to the starting position.
3. Inhale while lowering and exhale while lifting.
4. Repeat for opposite side.

Dumbbell Military Press

1. Raise two dumbbells to the height of shoulders.
2. With palms facing forward, press dumbbells upwards towards the ceiling.
3. Lower dumbbells back to the starting position.
4. Exhale while lifting and inhale while lowering.

Seated Side Lateral Raises

1. While in the seated position, hold dumbbells to the side of the body.
2. Raise dumbbells outwards and up to at least eye level height. Hold for two seconds.
3. Lower dumbbells to the starting position.
4. Exhale during the lift and inhale while lowering.

Dumbbell Curl

1. Position the two dumbbells to the sides of body with palms facing in.
2. With elbows to sides, raise one dumbbell and rotate forearm until forearm is vertical and palm faces shoulder. Lower to original position and repeat with opposite arm. Continue to alternate between sides.
3. Exhale during the lift and inhale while lowering.
4. This exercise can also be executed with both hands simultaneously.

Tricep Push-downs

1. Attach a short bar to a high pulley and grab with a neutral grip with palms facing down.
2. Standing upright with the torso straight and a very small inclination forward, bring the upper arms close to your body and perpendicular to the floor. The forearms should be pointing up towards the pulley as they hold the rope with the palms facing down. This is your starting position.
3. Using the triceps, push the bar down to the front of your thighs. At the end of the movement the arms are fully extended and perpendicular to the floor. The upper arms should always remain stationary next to your torso and only the forearms should move.
4. Hold for 2 seconds and return back to the starting position.
5. Exhale during the pushdown and inhale during the return.

Abdominal Crunches

1. Lie down on the floor on your back and bend your knees, placing your hands behind your head or across your chest.
2. Pull your belly button towards your spine, and flatten your lower back against the floor.
3. Slowly contract your abdominals, bringing your shoulder blades about two or four inches off the floor.
4. Exhale as you come up and keep your neck straight, chin up. Hold at the top of the movement for a few seconds, breathing continuously.
5. Slowly lower back down, but don't relax all the way.

Calisthenics Exercises

Improving muscle strength and endurance is easily accomplished with the use of weights. It is also possible to achieve similar results with simple exercises using only body weight for resistance. Performing these exercises in a circuit is ideal. A circuit is conducted by performing each exercise one after the other with moderate to high repetitions and minimal time between each exercise. Start the circuit with low intensity and gradually increase by adding more reps and less rest time between exercises.

The following are suggested exercises to assist in passing the FRPAT. There are many other exercises that can be used to achieve this goal. Please seek the advice of a professional trainer for more callisthenic exercises and circuit variations.

Push Ups

1. Place your hands on the ground shoulder width apart, keep feet together and back straight.
2. Lower the body until the upper arms are parallel to the ground.
3. Push up to the beginning position and completely straighten the arms.
4. Inhale while lowering and exhale during the push.

Chin Ups

1. Grasp the bar with palms facing you and hands 6-8 inches apart.
2. Hang with arms fully extended.
3. Pull yourself up until your chin is above the bar.
4. If possible, hold at the top for one second and then release to the starting position.
5. Inhale while pulling and exhale while releasing.

The Chair Dip

1. Place hands behind you on the chair with your feet straight in front.
2. Bend arms at the elbows and lower body until upper arms are parallel to the ground.
3. Push back up and straighten arms to return to start position.
4. Inhale while lowering and exhale pushing up.

The Treadmill

1. Start at a low pace for 10-15 minutes.
2. As the training program progresses increase to a faster pace for 25-30 minutes.
3. Perform this exercise at least three times a week.
4. Increasing the incline of the treadmill will also increase the intensity.

The Stair Mill

1. Start at a low pace for 10-15 minutes.
2. As the training program progresses increase to a faster pace for 25-30 minutes.
3. Perform this exercise at least three times a week.

Running

1. Start with run/walks and gradually build up to running at a comfortable pace. This technique decreases the chance of injury and allows you to run longer and stronger.
2. Pace yourself. Avoid running too far and too fast.
3. Listen to your body. Do not overwork yourself. Rest your body when needed.
4. Be patient. Starting a running program is hard and results take time.

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